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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/041,058	12/28/2001	Konstantin Volodarsky	PW-0269291	3484

7590 11/26/2003

Intellectual Property Group
Pillsbury Winthrop LLP
1600 Tysons Boulevard
McLean, VA 22102

EXAMINER

NICOLAS, WESLEY A

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 11/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/041,058

Applicant(s)

VOLODARSKY ET AL.

Examiner

Wesley A. Nicolas

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 26-39 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 26-27, 29-30, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ting et al. (U.S. 6,187,152), and further in view of Kamikawa et al. (6,131,588).

Ting et al. teach a method of depositing a conductive material on a workpiece and cleaning the workpiece in a chamber, the method comprising the steps of:

- lowering the workpiece into a lower section of the chamber (cols. 10-12);
- depositing the conductive material on the workpiece (cols. 10-12);
- raising the workpiece from the lower section to an upper section of the chamber (cols. 10-12);

Ting et al. fail to specifically teach the use of a movable guard or the deposition of the workpiece in the lower section of the chamber and then raising said workpiece to an upper section for cleaning. Ting et al. do however teach that said workpiece is deposited in an upper section, and then cleaned in a lower section of the chamber (opposite of what is claimed) (cols. 10-12).

Kamikawa et al. teach the use of a movable guard between an upper section and a lower section of a chamber, where the workpiece is treated in a lower section and then moved to an upper section (Abstract, Figs. 15-28 and cols. 8-17).

Claim 26 is rejected because it would have been obvious and within the ordinary skill in the art at the time the invention was made to have modified Ting et al. to use the movable guard as taught by Kamikawa et al. and in addition, treating the substrate in the lower section and then moving it to an upper section to be treated because Kamikawa et al. teach the use of a movable guard between an upper section and a lower section of a chamber, where the workpiece is treated in a lower section and then moved to an upper section (Abstract, Figs. 15-28 and cols. 8-17).

Regarding Applicant's transposition of steps (*i.e.* Applicant claims deposition in a lower chamber than moving substrate to an upper chamber for cleaning, compared to Ting et al. depositing in an upper chamber and moving to a lower chamber for cleaning), it has been shown that the transpositioning of varying steps, or varying the details of a process, as by adding a step or splitting one step into two does not avoid infringement where the processes are substantially identical or equivalent in terms of function, manner and result. General Foods Corp. v. Perk Foods Co., (DC NIll

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1968) (157 USPQ 14); Malignani v. Germania Electric Lamp Co., 169 F. 299, 301 (D.N.J. 1909); Matrix Contrast Corp. v. George Kellar, 34 F.2d 510, 512, 2 USPQ 400, 402-403 (E.D.N.Y 1929); Hammerschlag Mfg. Co. v. Bancroft, 32 F. 585, 589 (N.D.Ill.1887); Procter & Gamble Mfg. Co. v. Refining, 135 F.2d 900, 909, 57 USPQ 505, 513-514 (4th Cir. 1943); Matherson-Selig Co. v. Carl Gorr Color Gard, Inc., 154 USPQ 265, 276 (N.D.Ill.1967).

Claim 27 is rejected because Ting et al. teach that the lowering and raising steps comprise the step of providing a workpiece holder, wherein the workpiece holder is lowered and raised using a moveable shaft attached to the workpiece holder (Fig. 8, unlabeled shaft which is connected to Fig. 8).

Claim 29 is rejected because Ting et al. teach that the cleaning step further comprises the steps of: spinning the workpiece about a first axis; providing a cleaning solution to the workpiece; and drying the workpiece by spinning the workpiece (col. 1, lines 34-51).

Claim 30 is rejected because it would have been obvious and within the ordinary skill in the art at the time the invention was made to have modified Ting et al. include a plurality of spraying nozzles positioned on the inner walls of the upper chamber because Ting et al. teach fluid ports (Fig. 2, numeral 40) which one of ordinary skill would have used if it were desired to spray a solution into the chamber.

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Claim 37 is rejected because Ting et al. teach that the drying step further comprises blowing a dry gas to the workpiece (col. 6).

Allowable Subject Matter

4. Claims 28, 31, 32, 35, 36, and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

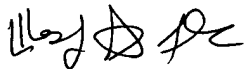
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley Nicolas whose telephone number is (703)305-0082. The examiner can normally be reached on Mon.-Thurs. from 7am to 5pm.

The Supervisory Primary Examiner for this Art Unit is Roy King whose telephone number is (703) 308-1146.

The fax number for this Group is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.



WESLEY A. NICOLAS
PATENT EXAMINER

November 24, 2003